

Table B-10: Illuminance Categories

Please see Chapter 10 in the IESNA Lighting Handbook, Ninth Edition

NOTE: This table is taken from the *Office Lighting American National Standard Practice*, ANSI/IES RP 1, 1993. The table is produced in its entirety, including captions and footnotes. Permission to reprint is pending.

TABLE 3: Currently recommended illuminance categories for lighting design—target maintained values (See Table 4 for Illuminance Values). These recommendations provide a guide for efficient visual performance in office spaces rather than for safety alone. For a tabulation of minimum levels of illumination required for safety, see Table 7.

	Illuminance	Veiling
	Category	Reflectance
-		
Accounting		
(see individual tasks)		
Copied Tasks		
Ditto Copy (6)	E	!
Micro-fiche reader (1)	B	!!
Mimeograph	D	
Photographs, mod. detail	E	!!
Thermal copy, poor copy	F	!
Xerography, 3rd generation (6) and greater	E	
Xerograph	D	
Drafting Tasks		
Drafting: Mylar		
High contrast media; India ink, plastic		
leads, soft graphite leads	E	!
Low contrast media, hard graphite leads	F	!
Vellum: high contrast	E	!
low contrast	F	
Tracing paper: high contrast	E	!
low contrast	F	
Overlays (2)		
Light Table	C	
Prints: Blue Line	E	
Blueprints	E	
Sepia prints	F	

TABLE 3 (continued)

	Illuminance	Veiling	Category	Reflectance
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-				
EDP Tasks				
CRT Screens (1)			B	!!
Impact printer:	good ribbon		D	
	poor ribbon (6)		E	
	2nd carbon and greater (6)		E	
Ink jet printer			D	
Keyboard reading			D	
Machine rooms:	active operations		D	
	tape storage		D	
	machine area		C	
	equipment service (3)		E	
Thermal print			E	!
Filing				
	(see individual tasks)			
General and Public Areas				
AV areas			D	
Conference rooms			D	
	(critical seeing, refer to individual tasks)			
Display areas (4)			C	
Duplicating and off set printing area			D	
Elevators			C	
Escalators			C	
First aid areas			E	
Food service (7)				
Hallways			B	
Janitorial spaces			C	
Libraries (7)				
Lobbies and lounges			C	
Model making			F	
Mail sorting			E	
Mechanical rooms:	operation		B	
	equipment service (3)		E	
Reception area			C	
Rest rooms			C	
Stairs			B	
Utility rooms			B	
Graphic Design and Material				
Color selection (5)			F	
Charting and mapping			F	
Graphs			E	
Keylining			F	
Layout and artwork			F	
Photographs, mod. detail			E	!!
Handwritten Tasks				
#2 pencil and softer leads			D	!
#3 pencil			E	!
#4 pencil and harder leads (6)			F	!
Ball point pen			D	!
Felt tip pen			D	
Handwritten carbon copies (6)			E	
Non photographically reproducible colors			F	

TABLE 3 (continued)

	Illuminance	Veiling	Category	Reflectance
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Printed Tasks

6 pt (6) see 2.4	E	!
8 & 10 pt	D	!
Glossy magazines	D	!!
Maps	E	
Newsprint	D	
Typed Originals	D	
Typed 2nd carbon and later (6)	E	
Telephone books	E	

NOTES:

1. Veiling reflections may be produced on glass surfaces. It may be necessary to treat plus weighting factors as minus in order to obtain proper light balance.
2. Degradation factors: Overlays add 1 weighing factor for each overlay
Used material estimate additional factors
See Table 4
3. Only when actual equipment service is in progress. May be achieved by a general lighting system or by localized lighting or by portable equipment.
4. For details on the lighting of display refer to Recommended Practice for Lighting Merchandise Areas. (10)
5. For color matching, the quality of the color of the light source may be important.
6. Designing to higher levels to accommodate poor quality tasks should be undertaken only after it is determined that task quality cannot be improved. If a poor quality task cannot be eliminated, its "time and importance" factor should be carefully considered before allowing it to govern the illuminance level selection.
7. See Reference 9.
- ! Task subject to veiling reflections. Illuminance listed is not an ESI value. Currently, insufficient experience in the use of ESI target values precludes the direct use of Equivalent Sphere Illumination in the present consensus approach recommend illuminance values. Equivalent Sphere Illumination may be used as a tool in determining the effectiveness of controlling veiling reflections and as part of the evaluation of lighting systems.
- !! Especially subject to veiling reflectances. It may be necessary to shield the task or to reorient it.

Definition of Merchandising and Associated Service Areas in Stores

NOTE: This table is taken from the *Recommended Practice for Lighting Merchandising Areas*, IES RP-2. The table is produced in its entirety, including captions and footnotes. Permission to reprint is pending.

TABLE 1—Currently Recommended Illuminance for Lighting Design in Merchandising and Associated Areas—Target Maintained Levels

Areas or Tasks	Description	Type of Activity Area*	Lux	Foot-candles
-				
Circulation	Area not used for display or appraisal of merchandise for sales transactions	High activity Medium activity Low activity	300 400 100	30 20 10
-				
Merchandise*** (including showcases & wall displays)	That plane area, horizontal to vertical, where merchandise is displayed and readily accessible for customer examination	High activity Medium activity Low activity	1000 750 300	100 75 30
-				
Show windows				
Daytime lighting				
General			2000	200
Feature			10000	1000
-				
Nighttime lighting				
Main business districts—highly competitive				
General			2000	200
Feature			10000	1000
-				
Secondary business districts or small towns				
General			1000	100
Feature			5000	500
-				
Sales Transactions	Areas used for employee price verification and for recording transactions	Reading of copied, written, printed or EDP information		See Table 2
-				
Support Services	Store spaces where merchandising is a prime consideration	Alteration fitting stock, wrapping and packaging rooms		See Table 2

NOTES:

~~* — One store may encompass all three types within the building: High Activity area — where merchandise displayed has recognizable usage. Evaluation and viewing time is rapid, and merchandise is shown to attract and stimulate the impulse buying decision; Medium Activity — where merchandise is familiar in type or usage, but the customer may require time and/or help in evaluation of quality, usage, or for the decision to buy; and Low Activity — where merchandise is displayed that is purchased less frequently by the customer, who may be unfamiliar with the inherent quality, design, value or usage. Where assistance and time is necessary to reach a buying decision.~~

~~** — Maintained on the task or in the area at any time.~~

~~*** — Lighting levels to be maintained in the plane of the merchandise.~~

Fig. 2-1. Currently Recommended Illuminance Categories and Illuminance Values for Lighting Design—Targeted Maintenance Levels.

The tabulation that follows is a consolidated listing of the Society's current illuminance recommendations. This listing is intended to guide the lighting designer in selecting an appropriate illuminance for design and evaluation of lighting systems.

Guidance is provided in two forms: (1), in Parts I, II and III as an *Illuminance Category*, representing a range of illuminances (see page 2-3 for a method of selecting a value within each illuminance range); and (2), in parts IV, V and VI as an *Illuminance Value*. Illuminance Values are given in *lux* with an approximate equivalence in footcandles and as such are intended as *target* (nominal) values with deviations expected. These target values also represent maintained values (see page 2-23).

This table has been divided into the six parts for ease of use. Part I provides a listing of both Illuminance Categories and Illuminance Values for generic types of interior activities and normally is to be used when Illuminance Categories for a specific Area/Activity cannot be found in parts II and III. Parts IV, V and VI provide target maintained Illuminance Values for outdoor facilities sports and recreational areas, and transportation vehicles where special considerations apply as discussed on page 2-4.

In all cases the recommendations in this table are based on the assumption that the lighting will be properly designed to take into account the visual characteristics of the task. See the design information in the particular application sections in this Application Handbook for further recommendations.

II. Commercial, Institutional, Residential and Public Assembly Interiors			
Illuminance		Illuminance	
Area/Activity	Category	Area/Activity	Category
Accounting (see Reading)		Court rooms	
Air terminals (see Transportation terminals)		Seating area	C
Armories	C ⁺	Court activity area	E ³
Art galleries (see Museums)		Dance halls and discotheques	B
Auditoriums		Depots, terminals and stations	
Assembly	C ⁺	(see Transportation terminals)	
Social activity	B	Drafting	
Banks		Mylar	
Lobby		High contrast media; India ink;	
General	C	plastic leads, soft graphite leads	E ³
Writing area	D	Low contrast media; hard graphite	
Tellers' stations	E ³	leads	E ³
Barber shops and beauty parlors	E	Vellum	
Churches and synagogues	(see page 7-2) ⁴	High contrast	E ³
Club and lodge rooms		Low contrast	E ³
Lounge and reading	D	Tracing paper	
Conference rooms		High contrast	E ³
Conferring	D	Low contrast	E ³
Critical seeing (refer to individual task)		Overlays ⁵	
		Light table	C
		Prints	
		Blue line	E
		Blueprints	E
		Sepia prints	F

NOTE: This table is taken from the Figure 2-2 of the *IES Lighting Handbook 1982 Application Volume*. Part II of the table is produced in its entirety, with captions and footnotes. Permission to reprint is pending.

Fig. 2-1. Continued

II. Continued			
Area/Activity	Illuminance Category	Area/Activity	Illuminance Category
Educational facilities		Cardiac function lab	E
Classrooms		Central sterile supply	
General (see Reading)		Inspection, general	E
Drafting (see Drafting)		Inspection	F
Home economics (see Residences)		At sinks	E
Science laboratories	E	Work areas, general	D
Lecture rooms		Processed storage	D
Audience (see Reading)		Corridors ¹⁷	
Demonstration	F	Nursing areas—day	C
Music rooms (see Reading)		Nursing areas—night	B
Shops (see Part III, Industrial Group)		Operating areas, delivery, recovery, and laboratory suites and service	E
Sight saving rooms	F	Critical care areas ¹⁷	
Study halls (see Reading)		General	C
Typing (see Reading)		Examination	E
Sports facilities (see Part V, Sports and Recreational Areas)		Surgical task lighting	H
Cafeterias (see Food service facilities)		Hand washing	F
Dormitories (see Residences)		Cystoscopy room ^{17,18}	
Elevator, freight and passenger	C	Dental suite ¹⁷	
Exhibition halls	C ⁺	General	D
Filing (refer to individual task)		Instrument tray	E
Financial facilities (see Banks)		Oral Cavity	H
Fire halls (see Municipal buildings)		Prosthetic laboratory, general	D
Food service facilities		Prosthetic laboratory, work bench	E
Dining areas		Prosthetic, laboratory, local	F
Cashier	D	Recovery room, general	C
Cleaning	C	Recovery room, emergency examination	E
Dining	B ⁶	Dialysis unit, medical ¹⁷	F
Food displays (see Merchandising spaces)		Elevators	C
Kitchen	E	EKG and specimen room ¹⁷	
Garages—parking (see page 14-28)		General	B
Gasoline stations (see Service stations)		On equipment	C
Graphic design and material		Emergency outpatient ¹⁷	
Color selection	F ¹¹	General	E
Charting and mapping	F	Local	F
Graphs	E	Endoscopy rooms ^{17,18}	
Keylining	F	General	E
Layout and artwork	F	Peritoneoscopy	D
Photographs, moderate detail	E ¹³	Culdoscopy	D
Health care facilities		Examination and treatment rooms ¹⁷	
Ambulance (local)	E	General	D
Anesthetizing	E	Local	E
Autopsy and morgue ^{17,18}		Eye surgery ^{17,18}	F
Autopsy, general	E	Fracture room ¹⁷	
Autopsy table	G	General	E
Morgue, general	D	Local	F
Museum	E	Inhalation therapy	D
		Laboratories ¹⁷	
		Specimen collecting	E
		Tissue laboratories	F
		Microscopic reading room	D
		Gross specimen review	F
		Chemistry rooms	E

Fig. 2-1. Continued

II. Continued			
Area/Activity	Illuminance Category	Area/Activity	Illuminance Category
Bacteriology rooms		Radiological suite ¹⁷	
General	E	Diagnostic section	
Reading culture plates	F	General ¹⁸	A
Hematology	E	Waiting area	A
Linens		Radiographic/fluoroscopic room	A
Sorting soiled linen	D	Film sorting	F
Central (clean) linen room	D	Barium kitchen	E
Sewing room, general	D	Radiation therapy section	
Sewing room, work area	E	General ¹⁸	B
Linen closet	B	Waiting area	B
Lobby	C	Isotope kitchen, general	E
Locker rooms	C	Isotope kitchen, benches	E
Medical illustration studio ^{17, 18}	F	Computerized radiotomography section	
Medical records	E	Scanning room	B
Nurseries ¹⁷		Equipment maintenance room	E
General ¹⁸	C	Solarium	
Observation and treatment	E	General	C
Nursing stations ¹⁷		Local for reading	D
General	D	Stairways	C
Desk	E	Surgical suite ¹⁷	
Corridors, day	C	Operating room, general ¹⁸	F
Corridors, night	A	Operating table	(see page 7-15)
Medication station	E	Scrub room	F
Obstetric delivery suite ¹⁷		Instruments and sterile supply room	D
Labor rooms		Clean up room, instruments	E
General	C	Anesthesia	C
Local	E	Substerilizing room	C
Birthing room	F	Surgical induction room ^{17, 18}	E
Delivery area		Surgical holding area ^{17, 18}	E
Scrub, general	F	Toilets	C
General	G	Utility room	D
Delivery table	(see page 7-19)	Waiting areas ¹⁷	
Resuscitation	G	General	C
Post delivery recovery area	E	Local for reading	D
Substerilizing room	B		
Occupational therapy ¹⁷		Homes (see Residences)	
Work area, general	D	Hospitality facilities	
Work tables or benches	E	(see Hotels , — food service facilities)	
Patients' rooms ¹⁷		Hospitals (see Health care facilities)	
General ¹⁸	B	Hotels	
Observation	A	Bathrooms, for grooming	D
Critical examination	E	Bedrooms, for reading	D
Reading	D	Corridors, elevators and stairs	C
Toilets	D	Front desk	E ³
Pharmacy ¹⁷		Linen room	
General	E	Sewing	F
Alcohol vault	D	General	C
Laminar flow bench	F	Lobby	
Night light	A	General lighting	C
Parenteral solution room	D	Reading and working areas	D
Physical therapy departments		Canopy (see Part IV, Outdoor Facilities)	
Gymnasiums	D	Houses of worship	(see page 7-5)
Tank rooms	D	Kitchens (see Food service facilities or Residences)	
Treatment cubicles	D	Libraries	
Postanesthetic recovery room ¹⁷		Reading areas (see Reading)	
General ¹⁸	E		
Local	H		
Pulmonary function laboratories ¹⁷	E		

Fig. 2-1. Continued

H. Continued			
Area/Activity	Illuminance Category	Area/Activity	Illuminance Category
Book stacks [vertical 760 millimeters (30 inches) above floor]		Parking facilities	(see page 14-28)
Active stacks	D	Post offices (see Offices)	
Inactive stacks	B	Reading	
Book repair and binding	D	Copied tasks	
Cataloging	D ³	Ditto copy	E ³
Card files	E	Micro fiche reader	B ^{12,13}
Carrels, individual study areas		Mimeograph	D
(see Reading) Circulation desks	D	Photograph, moderate detail	E ¹³
Map, picture and print rooms (see Graphic design and material)		Thermal copy, poor copy	E ³
Audiovisual areas	D	Xerography	D
Audio listening areas	D	Xerography, 3rd generation and greater	E
Microform areas (see Reading)		Electronic data processing tasks	
Locker rooms	C	CRT screens	B ^{12,13}
Merchandising spaces		Impact printer	
Alteration room	F	good ribbon	D
Fitting room		poor ribbon	E
Dressing areas	D	2nd carbon and greater	E
Fitting areas	F	Ink jet printer	D
Locker rooms	C	Keyboard reading	D
Stock rooms, wrapping and packaging	D	Machine rooms	
Sales transaction area (see Reading)		Active operations	D
Circulating (see page 8-7) [*]		Tape storage	D
Merchandise (see page 8-7) [*]		Machine area	C
Feature display (see page 8-7) [*]		Equipment service	E ¹⁰
Show windows (see page 8-7) [*]		Thermal print	E
Motels (see Hotels)		Handwritten tasks	
Municipal buildings — fire and police		#2 pencil and softer leads	D ³
Police		#3 pencil	E ³
Identification records	F	#4 pencil and harder leads	E ³
Jail cells and interrogation rooms	D	Ball point pen	D ³
Fire hall	D	Felt tip pen	D
Museums		Handwritten carbon copies	E
Displays of non-sensitive materials	D	Non-photographically reproducible colors	F
Displays of sensitive materials (see page 7-34) ²		Chalkboards	E ³
Lobbies, general gallery areas, corridors	C	Printed tasks	
Restoration or conservation shops and laboratories	E	6 point type	E ³
Nursing homes (see Health care facilities)		8 and 10 point type	D ³
Offices		Glossy magazines	D ¹³
Accounting (see Reading)		Maps	E
Audio-visual areas	D	Newsprint	D
Conference areas (see Conference rooms)		Typed originals	D
Drafting (see Drafting)		Typed 2nd carbon and later	E
General and private offices (see Reading)		Telephone books	E
Libraries (see Libraries)		Residences	
Lobbies, lounges and reception areas	C	General lighting	
Mail sorting	E	Conversation, relaxation and entertainment	B
Off set printing and duplicating area	D	Passage areas	B
Spaces with VDTs (see page 5-13)		Specific visual tasks ²⁰	
		Dining	C
		Grooming	
		Makeup and shaving	D
		Full length mirror	D

Fig. 2-1. Continued

II. Continued			
Illuminance		Illuminance	
Area/Activity	Category	Area/Activity	Category
Handicrafts and hobbies			
Workbench hobbies			
Ordinary tasks	D		
Difficult tasks	E		
Critical tasks	F		
Easel hobbies	E		
Ironing	D		
Kitchen duties			
Kitchen counter			
Critical seeing	E		
Noncritical	D		
Kitchen range			
Difficult seeing	E		
Noncritical	D		
Kitchen sink			
Difficult seeing	E		
Noncritical	D		
Laundry			
Preparation and tubs	D		
Washer and dryer	D		
Music study (piano or organ)			
Simple scores	D		
Advanced scores	E		
Substandard size scores	F		
Reading			
In a chair			
Books, magazines and newspapers	D		
Handwriting, reproductions and			
poor copies	E		
In bed			
Normal	D		
Prolonged serious or critical	E		
Desk			
Primary task plane, casual	D		
Primary task plane, study	E		
Sewing			
Hand sewing			
Dark fabrics, low contrast	F		
Light to medium fabrics	E		
Occasional, high contrast	D		
Machine sewing			
Dark fabrics, low contrast	F		
Light to medium fabrics	E		
Occasional, high contrast	D		
Table games			
	D		
		Restaurants (see Food service facilities)	
		Safety (see page 2-45)	
		Schools (see Educational facilities)	
		Service spaces (see also Storage rooms)	
		Stairways, corridors	C
		Elevators, freight and passenger	C
		Toilet and washroom	C
		Service stations	
		Service bays (see Part III, Industrial Group)	
		Sales room (see Merchandising spaces)	
		Show windows (see page 8-7)	
		Stairways (see Service spaces)	
		Storage rooms (see Part III, Industrial Group)	
		Stores (see Merchandising spaces and Show windows)	
		Television (see Section 11)	
		Theater and motion picture houses (see Section 11)	
		Toilets and washrooms C	
		Transportation terminals	
		Waiting room and lounge	C
		Ticket counters	E
		Baggage checking	D
		Rest rooms	C
		Concourse	B
		Boarding area	C

¹Include provisions for higher levels for exhibitions.

²Specific limits are provided to minimize deterioration effects.

³Task subject to veiling reflections. Illuminance listed is not an Equivalent Sphere Illumination (ESI) value. Currently, insufficient experience in the use of ESI target values precludes the direct use of ESI in the present consensus approach to recommend illuminance values. ESI may be used as a tool in determining the effectiveness of controlling veiling reflections and as a part of the evaluation of lighting systems.

⁴Illuminance values are listed based on experience and consensus. Values relate to needs during various religious ceremonies.

⁵~~Degradation factors: Overlays—add 2 weighting factor for each overlay; Used material—estimate additional factors.~~

⁶~~Provide higher level over food service or selection areas.~~

⁷~~Supplementary illumination as in delivery room must be available.~~

⁸~~Illuminance values developed for various degrees of store area activity.~~

⁹~~Or not less than 1/5 the level in the adjacent areas.~~

¹⁰~~Only when actual equipment service is in process. May be achieved by a general lighting system or by localized or portable equipment.~~

¹¹~~For color matching, the spectral quality of the color of the light source is important.~~

¹²~~Veiling reflections may be produced on glass surfaces. It may be necessary to treat plus weighting factors as minus in order to obtain proper illuminance.~~

¹³~~Especially subject to veiling reflections. It may be necessary to shield the task or to reorient it.~~

¹⁴~~Vertical~~

¹⁵~~Illuminance values may vary widely, depending upon the effect desired, the decorative scheme, and the use made of the room.~~

¹⁶~~Supplementary lighting should be provided in this space to produce the higher levels required for specific seeing tasks involved.~~

¹⁷~~Good to high color rendering capability should be considered in these areas. As lamps of higher luminous efficacy and higher color rendering capability become available and economically feasible, they should be applied in all areas of health care facilities.~~

¹⁸~~Variable (dimming or switching).~~

¹⁹~~Values based on a 25 percent reflectance, which is average for vegetation and typical outdoor surfaces. These figures must be adjusted to specific reflectances of materials lighted for equivalent brightness. Levels give satisfactory brightness patterns when viewed from dimly lighted terraces or interiors. When viewed from dark areas they may be reduced by at least 1/2; or they may be doubled when a high key is desired.~~

²⁰~~General lighting should not be less than 1/3 of visual task illuminance nor less than 200 lux [20 footcandles].~~

²¹~~Industry representatives have established a table of single illuminance values which, in their opinion, can be used in preference to employing reference 6. Illuminance values for specific operations can also be determined using illuminance categories of similar tasks and activities found in this table and the application of the appropriate weighting factors in Fig. 2-3.~~

²²~~Special lighting such that (1) the luminous area is large enough to cover the surface, which is being inspected and (2) the luminance is within the limits necessary to obtain comfortable contrast conditions. This involves the use of sources of large area and relatively low luminance in which the source luminance is the principal factor rather than the illuminance produced at a given point.~~

²³~~Maximum levels—controlled system.~~

²⁴~~Additional lighting needs to be provided for maintenance only.~~

²⁵~~Color temperature of the light source is important for color matching.~~

²⁶~~Select upper level for high speed conveyor systems. For grading redwood lumber 3000 lux [300 footcandles] is required.~~

²⁷~~Higher levels from local lighting may be required for manually operated cutting machines.~~

²⁸~~If color matching is critical, use illuminance category G.~~

Table B-11**NOTE: THIS TABLE REPLACES THE PREVIOUS TABLE B-11.**

LUMINAIRE POWER

Table B-11

Lamp		Ballast			Watts/	Comments
No.	Designation	No.	Abbreviation	Description	Luminaire	
Fluorescent Circline						
Fluorescent Circline, Rapid Start (22 W)						
1	FC8T9	1	MAG STD	Magnetic Standard	27	8" OD
Fluorescent Circline, Rapid Start (32 W)						
1	FC12T9	1	MAG STD	Magnetic Standard	45	12" OD
Fluorescent Circline, Rapid Start (40 W)						
1	FC16T9	1	MAG STD	Magnetic Standard	57	16" OD
Fluorescent Circline, T5 Program Start (22 W)						
1	FC9T5	1	ELECT NO	Electronic Normal Light	28	8" OD
2	FC9T5	1	ELECT NO	Electronic Normal Light	53	
Fluorescent Circline, T5 Program Start (40 W)						
1	FC12T5	1	ELECT NO	Electronic Normal Light	41	12" OD
2	FC12T5	1	ELECT NO	Electronic Normal Light	80	
Fluorescent Circline, T5 Rapid Start (55 W)						
1	FC12T5HO	1	ELECT NO	Electronic Normal Light	55	12" OD
2	FC12T5HO	1	ELECT NO	Electronic Normal Light	103	
1	FC12T5HO	1	ELECT DIM	Electronic Dimming	12~59	
2	FC12T5HO	1	ELECT DIM	Electronic Dimming	24~114	
Fluorescent Circline, T5 Rapid Start (40 + 22 W)						
1+1	FC12T5/FC9T5	1	ELECT NO	Electronic Normal Light	68	8" & 12" OD
Fluorescent 2D						
Compact Fluorescent 2D (10W, GR10q-4 Four Pin Base)						
1	CFS10W/GR10q	1	MAG STD	Magnetic Standard	16	3.6" across
1	CFS10W/GR10q	1	ELECT	Electronic	13	
2	CFS10W/GR10q	1	ELECT	Electronic	26	
Compact Fluorescent 2D (16W, GR10q-4 Four Pin Base)						
1	CFS16W/GR10q	1	MAG STD	Magnetic Standard	23	5.5" across
1	CFS16W/GR10q	1	ELECT	Electronic	15	
2	CFS16W/GR10q	1	ELECT	Electronic	30	
Compact Fluorescent 2D (21W, GR10q-4 Four Pin Base)						
1	CFS21W/GR10q	1	MAG STD	Magnetic Standard	31	5.5" across
1	CFS21W/GR10q	1	ELECT	Electronic	21	
2	CFS21W/GR10q	1	ELECT	Electronic	42	
Compact Fluorescent 2D (28W, GR10q-4 Four Pin Base)						
1	CFS28W/GR10q	1	MAG STD	Magnetic Standard	38	8.1" across
1	CFS28W/GR10q	1	ELECT	Electronic	28	
2	CFS28W/GR10q	1	ELECT	Electronic	56	
Compact Fluorescent 2D (38W, GR10q-4 Four Pin Base)						
1	CFS38W/GR10q	1	ELECT	Electronic	37	8.1" across

	<u>2</u>	<u>CFS38W/GR10q</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic</u>	<u>74</u>		

LUMINAIRE POWER

Table B-11

Lamp		Ballast			Watts/	Comments
No.	Designation	No.	Abbreviation	Description	Luminaire	
Compact Fluorescent						
Compact Fluorescent Twin (5 W, G23 Two Pin Base - F5TT Lamp)						
1	CFT5W/G23	1	MAG STD	Magnetic Standard	9	4.1" MOL
2	CFT5W/G23	2	MAG STD	Magnetic Standard	18	
Compact Fluorescent Twin (7 W, G23 Two Pin Base - F7TT Lamp)						
1	CFT7W/G23	1	MAG STD	Magnetic Standard	11	5.3" MOL
2	CFT7W/G23	2	MAG STD	Magnetic Standard	22	
Compact Fluorescent Twin (7 W, 2G7 Four Pin Base - F7TT Lamp)						
1	CFT7W/2G7	1	ELECT	Electronic	8	5.3" MOL
2	CFT7W/2G7	2	ELECT	Electronic	16	
Compact Fluorescent Twin (9 W, G23 Two Pin Base - F9TT Lamp)						
1	CFT9W/G23	1	MAG STD	Magnetic Standard	13	6.5" MOL
2	CFT9W/G23	2	MAG STD	Magnetic Standard	26	
Compact Fluorescent Twin (9 W, 2G7 Four Pin Base - F9TT Lamp)						
1	CFT9W/2G7	1	ELECT	Electronic	10	6.5" MOL
2	CFT9W/2G7	2	ELECT	Electronic	20	
Compact Fluorescent Twin (13 W, GX23 Two Pin Base - F13TT)						
1	CFT13W/GX23	1	MAG STD	Magnetic Standard	17	7.5" MOL
2	CFT13W/GX23	2	MAG STD	Magnetic Standard	34	
Compact Fluorescent Twin (13 W, 2GX7 Four Pin Base - F13TT)						
1	CFT13W/2GX7	1	ELECT	Electronic	17	7.5" MOL
2	CFT13W/2GX7	2	ELECT	Electronic	34	
Compact Fluorescent Quad (9 W, G23-2 Two Pin Base - F9DTT Lamp)						
1	CFQ9W/G23-2	1	MAG STD 120	120 V Magnetic Standard	13	4.4" MOL
2	CFQ9W/G23-2	2	MAG STD 120	120 V Magnetic Standard	26	
Compact Fluorescent Quad (13 W, G24d-1 Two Pin Base - F13DTT Lamp)						
1	CFQ13W/G24d-1	1	MAG STD 120	120 V Magnetic Standard	18	6.0" MOL
2	CFQ13W/G24d-1	2	MAG STD 120	120 V Magnetic Standard	36	
1	CFQ13W/G24d-1	1	MAG STD 277	277 V Magnetic Standard	16	
2	CFQ13W/G24d-1	2	MAG STD 277	277 V Magnetic Standard	32	
Compact Fluorescent Quad (13 W, GX23-2 Two Pin Base)						
1	CFQ13W/GX23-2	1	MAG STD	Magnetic Standard	17	4.8" MOL
2	CFQ13W/GX23-2	2	MAG STD	Magnetic Standard	34	
Compact Fluorescent Quad (16W GX32d-1 Two Pin Base)						
1	CFQ16W/GX32d-1	1	MAG STD	Magnetic Standard	20	5.5" MOL
2	CFQ16W/GX32d-1	2	MAG STD	Magnetic Standard	40	
Compact Fluorescent Quad (18 W, G24d-2 Two Pin Base - F18DTT Lamp)						
1	CFQ18W/G24d-2	1	MAG STD 120	120 V Magnetic Standard	25	6.8" MOL
2	CFQ18W/G24d-2	2	MAG STD 120	120 V Magnetic Standard	50	
1	CFQ18W/G24d-2	1	MAG STD 277	277 V Magnetic Standard	22	6.0" MOL
2	CFQ18W/G24d-2	2	MAG STD 277	277 V Magnetic Standard	44	
1	CFQ22W/GX32d-2	1	MAG STD	Magnetic Standard	27	

LUMINAIRE POWER

Table B-11

Lamp		Ballast			Watts/	Comments
No.	Designation	No.	Abbreviation	Description	Luminaire	
Compact Fluorescent						
Compact Fluorescent Quad (22W, GX32d Two Pin Base)						
2	CFQ22W/GX32d-2	2	MAG STD	Magnetic Standard	54	
Compact Fluorescent Quad (26 W, G24d-3 Two Pin Base - F26DTT Lamp)						
1	CFQ26W/G24d-3	1	MAG STD 120	120 V Magnetic Standard	37	7.6" MOL
2	CFQ26W/G24d-3	2	MAG STD 120	120 V Magnetic Standard	74	
1	CFQ26W/G24d-3	1	MAG STD 277	227 V Magnetic Standard	33	
2	CFQ26W/G24d-3	2	MAG STD 277	227 V Magnetic Standard	66	
1	CFQ26W/G24d-3	1	ELECT 277V	277 V Electronic	27	
2	CFQ26W/G24d-3	2	ELECT 277V	277 V Electronic	54	
Compact Fluorescent Quad (28W GX32d Two Pin Base)						
1	CFQ28W/GX32d-3	1	MAG STD	Magnetic Standard	34	6.8" MOL
2	CFQ28W/GX32d-3	2	MAG STD	Magnetic Standard	68	
Compact Fluorescent Quad (10 W, G24q-1 Four Pin Base)						
1	CFQ10W/G24q-1	1	MAG STD 120	120 V Magnetic Standard	16	4.6" MOL
2	CFQ10W/G24q-1	2	MAG STD 120	120 V Magnetic Standard	32	
1	CFQ10W/G24q-1	1	MAG STD 277	227 V Magnetic Standard	13	
2	CFQ10W/G24q-1	2	MAG STD 277	227 V Magnetic Standard	26	
Compact Fluorescent Quad (13 W, G24q-1 Four Pin Base)						
1	CFQ13W/G24q-1	1	MAG STD 120	120 V Magnetic Standard	18	6.0" MOL
2	CFQ13W/G24q-1	2	MAG STD 120	120 V Magnetic Standard	36	
1	CFQ13W/G24q-1	1	MAG STD 277	227 V Magnetic Standard	16	
2	CFQ13W/G24q-1	2	MAG STD 277	227 V Magnetic Standard	32	
1	CFQ13W/G24q-1	1	ELECT	Electronic	14	
2	CFQ13W/G24q-1	2	ELECT	Electronic	25	
Compact Fluorescent Quad (13 W, GX7 Four Pin Base)						
1	CFQ13W/GX7	1	MAG STD	Magnetic Standard	17	4.8" MOL
2	CFQ13W/GX7	2	MAG STD	Magnetic Standard	34	
Compact Fluorescent Quad (18 W, G24q-2 Four Pin Base)						
1	CFQ18W/G24q-2	1	MAG STD 120	120 V Magnetic Standard	25	6.8" MOL
2	CFQ18W/G24q-2	2	MAG STD 120	120 V Magnetic Standard	50	
1	CFQ18W/G24q-2	1	MAG STD 277	227 V Magnetic Standard	22	
2	CFQ18W/G24q-2	2	MAG STD 277	227 V Magnetic Standard	44	
1	CFQ18W/G24q-2	1	ELECT	Electronic	21	
2	CFQ18W/G24q-2	2	ELECT	Electronic	38	
Compact Fluorescent Triple (13 W, GX24q-1 Four Pin Base)						
1	CFM 13W/GX24q-1	1	MAG STD	Magnetic Standard	18	4.2" MOL
2	CFM 13W/GX24q-1	2	MAG STD	Magnetic Standard	36	
1	CFM 13W/GX24q-1	1	ELECT	Electronic	14	
2	CFM 13W/GX24q-1	2	ELECT	Electronic	25	

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Table B-11

Lamp		Ballast			Watts/	Comments	
No.	Designation	No.	Abbreviation	Description	Luminaire		
Compact Fluorescent							
Compact Fluorescent Triple (18W, GX24q-2 Four Pin Base)							
1	CFM 18W/GX24q-2	1	MAG STD	Magnetic Standard	25	5.0" MOL	
2	CFM 18W/GX24q-2	2	MAG STD	Magnetic Standard	50		
1	CFM 18W/GX24q-2	1	ELECT	Electronic	21		
2	CFM 18W/GX24q-2	2	ELECT	Electronic	38		
Compact Fluorescent Triple (26W, GX24q-3 Four Pin Base)							
1	CFTR 26W/GX24q-3	1	MAG STD	Magnetic Standard	37	4.9 to 5.4" MOL	
2	CFTR 26W/GX24q-3	2	MAG STD	Magnetic Standard	74		
1	CFTR 26W/GX24q-3	1	ELECT	Electronic	28		
2	CFTR 26W/GX24q-3	1	ELECT	Electronic	55		
1	CFTR 26W/GX24q-3	1	ELECT DIM	Electronic DImming	8~29		BF .05~1.0
2	CFTR 26W/GX24q-3	1	ELECT DIM	Electronic Dimming	12~57		BF .05~1.0
Compact Fluorescent Triple (32 W, GX24q-3 Four Pin Base)							
1	CFTR32WGX24q-3	1	ELECT	Electronic	35		
2	CFTR32WGX24q-3	1	ELECT	Electronic	69		
1	CFTR32WGX24q-3	1	ELECT DIM	Electronic DImming	9~38		BF .05~1.05
2	CFTR32WGX24q-3	1	ELECT DIM	Electronic Dimming	20~76		BF .05~1.05
Compact Fluorescent Triple or Quad (42W, GX24q-4 Four Pin Base)							
1	CFTR42WGX24q-4	1	ELECT	Electronic	46		
2	CFTR42WGX24q-4	1	ELECT	Electronic	94		
1	CFTR42WGX24q-4	1	ELECT DIM	Electronic DImming	10~49		BF .05~1.05
2	CFTR42WGX24q-4	1	ELECT DIM	Electronic Dimming	20~98		BF .05~1.05
Compact Fluorescent Triple or Quad (57W, GX24q-5 Four Pin Base)							
1	CFTR57WGX24q-5	1	ELECT	Electronic	62	18~66 BF .05~1.05	
1	CFTR57WGX24q-5	1	ELECT DIM	Electronic Dimming			
Compact Fluorescent Triple or Quad (70W, GX24q-6 Four Pin Base)							
1	CFTR70WGX24q-6	1	ELECT	Electronic	75	18~80 BF .05~1.00	
1	CFTR70WGX24q-6	1	ELECT DIM	Electronic DImming			

LUMINAIRE POWER

Table B-11

Lamp		Ballast			Watts/	Comments
No.	Designation	No.	Abbreviation	Description	Luminaire	
Long Compact Fluorescent Twin						
Fluorescent T5 Twin (18W - F18TT Lamp)						
1	FT18W/2G11	1	MAGNETIC	Magnetic Energy Efficient	23	BF~1.0
2	FT18W/2G11	1	MAGNETIC	Magnetic Energy Efficient	46	BF~1.0
3	FT18W/2G11	1	MAGNETIC	Magnetic Energy Efficient	69	
1	FT18W/2G11	1	ELECT	Electronic	24	
2	FT18W/2G11	1	ELECT	Electronic	35	
3	FT18W/2G11	1	ELECT	Electronic	52	
Fluorescent T5 Twin (24-27W- F24TT or F27TT Lamp)						
1	FT24W/2G11	1	MAGNETIC	Magnetic Energy Efficient	32	
2	FT24W/2G11	1	MAGNETIC	Magnetic Energy Efficient	66	
3	FT24W/2G11	1	MAGNETIC	Magnetic Energy Efficient	98	
1	FT24W/2G11	1	ELECT	Electronic	27	BF~1.0
2	FT24W/2G11	1	ELECT	Electronic	52	BF~1.0
Fluorescent T5 Twin (36-39W - F36TT or F39TT Lamp)						
1	FT36W/2G11	1	MAGNETIC	Magnetic Energy Efficient	51	
2	FT36W/2G11	1	MAGNETIC	Magnetic Energy Efficient	66	
3	FT36W/2G11	2	MAGNETIC	Magnetic Energy Efficient	117	
1	FT36W/2G11	1	ELECT	Electronic	37	
2	FT36W/2G11	1	ELECT	Electronic	70	
1	FT36W/2G11	1	ELECTHO	Electronic High Output	46	BF=1.22
2	FT36W/2G11	1	ELECTHO	Electronic High Output	86	BF=1.20
Fluorescent T5 Twin (40 W - F40TT Lamp)						
1	FT40W/2G11	1	MAGNETIC	Magnetic Energy Efficient	43	
2	FT40W/2G11	1	MAGNETIC	Magnetic Energy Efficient	86	
3	FT40W/2G11	2	MAGNETIC	Magnetic Energy Efficient	130	
Electronic Ballasts						
RO=ballast factor 70 to 85% NO = ballast factor 85 to 100% HO = ballast factor >100%						
1	FT40W/2G11	1	ELECT NO	Electronic	41	BF~.90
2	FT40W/2G11	1	ELECT NO1	Electronic	72	BF~.88
2	FT40W/2G11	1	ELECT NO2	Electronic	78	BF~.97
3	FT40W/2G11	1	ELECT NO	Electronic	103	BF~.86
1	FT40W/2G11	1	ELECT HO	Electronic High Output	50	BF ~ 1.1
1	FT40W/2G11	1	ELECT DIM1	Electronic Dimming	10-41	BF .05~1.0
2	FT40W/2G11	1	ELECT DIM1	Electronic Dimming	17-80	BF .05~1.0
1	FT40W/2G11	1	ELECT DIM2	Electronic Dimming	11-38	BF .05~.88
2	FT40W/2G11	1	ELECT DIM2	Electronic Dimming	16-76	BF .05~.88

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Table B-11

Lamp		Ballast			Watts/	Comments
No.	Designation	No.	Abbreviation	Description	Luminaire	
Long Compact Fluorescent Twin						
Fluorescent T5 Twin (50 W - F50TT Lamp)						
Electronic Ballasts						
RO=ballast factor 70 to 85% NO = ballast factor 85 to 100% HO = ballast factor >100%						
1	FT50W/2G11	1	ELECT NO	Electronic Normal Output	54	BF~.98
2	FT50W/2G11	1	ELECT NO	Electronic Normal Output	106	BF~.98
1	FT50W/2G11	1	ELECT HO	Electronic High Output	61	BF~1.12
2	FT50W/2G11	1	ELECT HO	Electronic High Output	115	BF~1.10
1	FT50W/2G11	1	ELECT DIM	Electronic Dimming	51	
2	FT50W/2G11	1	ELECT DIM	Electronic Dimming	92	
Fluorescent T5 Twin (55 W - F55TT Lamp)						
1	FT55W/2G11	1	ELECT NO	Electronic Normal Output	58	BF~.92
2	FT55W/2G11	1	ELECT NO	Electronic Normal Output	109	BF~.90
1	FT55W/2G11	1	ELECT DIM	Electronic Dimming	13-59	BF .03~.90
2	FT55W/2G11	1	ELECT DIM	Electronic Dimming	24-114	BF .03~.90
Fluorescent T5 Twin (80 W – F80TT Lamp)						
1	FT80W/2G11	1	ELECT NO	Electronic	91	BF~1.00
Fluorescent U-Tube*						
2 ft. Fluorescent U-Tube T8 (32W - FBO31T8 or F32T8/U/6 Lamp)						
1	FB31T8/F32T8U	0.5	MAGNETIC	Magnetic Energy Efficient	35	Tandem wired
1	FB31T8/F32T8U	1	MAGNETIC	Magnetic Energy Efficient	36	
2	FB31T8/F32T8U	1	MAGNETIC	Magnetic Energy Efficient	69	
3	FB31T8/F32T8U	1.5	MAGNETIC	Magnetic Energy Efficient	104	Tandem wired
3	FB31T8/F32T8U	2	MAGNETIC	Magnetic Energy Efficient	105	
1	FB31T8/F32T8U	1	ELECT NO	Electronic Normal Output	39	
2	FB31T8/F32T8U	1	ELECT NO	Electronic Normal Output	62	
3	FB31T8/F32T8U	1	ELECT NO	Electronic Normal Output	92	
4	FB31T8/F32T8U	1	ELECT NO	Electronic Normal Output		
1	FB31T8/F32T8U	1	ELECT DIM	Electronic DImming	9~33	BF .05~.88
2	FB31T8/F32T8U	1	ELECT DIM	Electronic DImming	14~64	BF .05~.88
3	FB31T8/F32T8U	1	ELECT DIM	Electronic Dimming	18~93	BF .05~.88
4	FB31T8/F32T8U	1	ELECT DIM	Electronic Dimming	25~116	BF .05~.88

LUMINAIRE LUMIN.

Table B-11

Lamp		Ballast			Watts/ Luminaire	Comments
No.	Designation	No.	Abbreviation	Description		
Fluorescent U-Tube*						
2 ft. Fluorescent U-Tube T12 ("Energy Saving" 34W)						
1	FB40T12/ES	0.5	MAGNETIC	Magnetic Energy Efficient	36	Tandem wired
1	FB40T12/ES	1	MAGNETIC	Magnetic Energy Efficient	43	
2	FB40T12/ES	1	MAGNETIC	Magnetic Energy Efficient	72	
3	FB40T12/ES	1	MAGNETIC	Magnetic Energy Efficient	105	
3	FB40T12/ES	1.5	MAGNETIC	Magnetic Energy Efficient	108	Tandem wired
3	FB40T12/ES	2	MAGNETIC	Magnetic Energy Efficient	115	
1	FB40T12/ES	0.5	ELECT	Electronic	30	Tandem wired
1	FB40T12/ES	1	ELECT	Electronic	31	
2	FB40T12/ES	1	ELECT	Electronic	59	
3	FB40T12/ES	1	ELECT	Electronic	90	
3	FB40T12/ES	1.5	ELECT	Electronic	88	Tandem wired
3	FB40T12/ES	2	ELECT	Electronic	90	
2 ft. Fluorescent U-Tube T-12 ("Standard" 40W)						
1	FB40T12	0.5	MAGNETIC	Magnetic Energy Efficient	43	Tandem wired
1	FB40T12	1	MAGNETIC	Magnetic Energy Efficient	48	
2	FB40T12	1	MAGNETIC	Magnetic Energy Efficient	86	
3	FB40T12	1	MAGNETIC	Magnetic Energy Efficient	127	
3	FB40T12	1.5	MAGNETIC	Magnetic Energy Efficient	129	Tandem wired
3	FB40T12	2	MAGNETIC	Magnetic Energy Efficient	134	
1	FB40T12	0.5	ELECT	Electronic	35	Tandem wired
1	FB40T12	1	ELECT	Electronic	36	
2	FB40T12	1	ELECT	Electronic	67	
3	FB40T12	1	ELECT	Electronic	100	
3	FB40T12	1.5	ELECT	Electronic	101	Tandem wired
3	FB40T12	2	ELECT	Electronic	103	

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Table B-11

Lamp		Ballast			Watts/	Comments
No.	Designation	No.	Abbreviation	Description	Luminaire	
Fluorescent Linear Lamps - Preheat						
Fluorescent Preheat T5 (4W)						
1	F4T5	1	MAG STD	Magnetic Standard	8	6" MOL
Fluorescent Preheat T5 (6W)						
1	F6T5	1	MAG STD	Magnetic Standard	10	9" MOL
Fluorescent Preheat T5 (8W)						
1	F8T5	1	MAG STD	Magnetic Standard	12	12" MOL
Fluorescent Preheat T8 (15W)						
1	F15T8	1	MAG STD	Magnetic Standard	19	18" MOL
Fluorescent Preheat T12 (15W)						
1	F15T12	1	MAG STD	Magnetic Standard	19	18" MOL
Fluorescent Preheat T12 (20W)						
1	F20T12	1	MAG STD	Magnetic Standard	25	24" MOL
2	F20T12	1	MAG STD	Magnetic Standard	50	24" MOL
Fluorescent Preheat T8 (30W)						
1	F30T8	1	MAG STD	Magnetic Standard	46	30" MOL
2	F30T8	1	MAG STD	Magnetic Standard	79	30" MOL
Fluorescent Preheat T12 (30W)						
1	F30T12	1	MAG STD	Magnetic Standard	46	30" MOL
2	F30T12	1	MAG STD	Magnetic Standard	79	30" MOL
2	F30T12	1	MAGNETIC	Magnetic Energy Efficient	74	30" MOL
1	F30T12	1	ELECT	Electronic	31	30" MOL
2	F30T12	2	ELECT	Electronic	63	30" MOL

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Table B-11

Lamp		Ballast			Watts/	Comments
No.	Designation	No.	Abbreviation	Description	Luminaire	
Fluorescent Linear Lamps T5						
~23" Fluorescent Program Start T5 (14W)						
1	F14T5	1	ELECT	Elect. Program Start BF=1	18	
2	F14T5	1	ELECT	Elect. Program Start BF=1	34	
~34.5" Fluorescent Program Start T5 (21W)						
1	F21T5	1	ELECT	Elect. Program Start BF=1	27	
2	F21T5	1	ELECT	Elect. Program Start BF=1	50	
~46" Fluorescent Program Start T5 (28W)						
1	F28T5	1	ELECT	Elect. Program Start BF=1	30	
2	F28T5	1	ELECT	Elect. Program Start BF=1	60	
~58.5" Fluorescent Program Start T5 (35W)						
1	F35T5	1	ELECT	Elect. Program Start BF=1	40	
2	F35T5	1	ELECT	Elect. Program Start BF=1	78	
~23" Fluorescent Program Start T5 High Output (24W)						
1	F24T5HO	1	ELECT	Elect. Program Start BF=1	27	
2	F24T5HO	1	ELECT	Elect. Program Start BF=1	52	
~34.5" Fluorescent Program Start T5 High Output(39W)						
1	F39T5	1	ELECT	Elect. Program Start BF=1	43	
2	F39T5	1	ELECT	Elect. Program Start BF=1	85	
~46" Fluorescent Program Start T5 High Output (54W)						
1	F54T5	1	ELECT	Elect. Program Start BF=1	62	
2	F54T5	1	ELECT	Elect. Program Start BF=1	117	
1	F54T5	1	ELECT DIM	Elect. Dimming	12-63	
2	F54T5	1	ELECT DIM	Elect. Dimming	24-125	
~57.5" Fluorescent Program Start T5 High Output (80W)						
1	F80T5	1	ELECT	Elect. Program Start BF=1	89	
Fluorescent Rapid Start T8						
2 foot Fluorescent Rapid Start T8 (17W)						
1	F17T8	1	MAGNETIC	Magnetic Energy Efficient	24	
2	F17T8	1	MAGNETIC	Magnetic Energy Efficient	45	
Electronic Ballasts						
RO=ballast factor 70 to 85% NO = ballast factor 85 to 100% HO = ballast factor >100%						
1	F17T8	1	ELECT NO	Electronic Normal Output	22	
2	F17T8	1	ELECT NO	Electronic Normal Output	33	
3	F17T8	1	ELECT NO	Electronic Normal Output	53	
3	F17T8	2	ELECT NO	Electronic Normal Output	55	
4	F17T8	1	ELECT NO	Electronic Normal Output	63	

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Table B-11

Lamp		Ballast			Watts/	Comments
No.	Designation	No.	Abbreviation	Description	Luminaire	
Fluorescent Rapid Start T8						
2 foot Fluorescent Rapid Start T8 (17W)						
1	F17T8	1	ELECT DIM	Electronic Dimming	8~20	BF .05~.88
2	F17T8	1	ELECT DIM	Electronic Dimming	10~37	BF .05~.88
3	F17T8	1	ELECT DIM	Electronic Dimming	12~56	BF .05~.88
4	F17T8	1	ELECT DIM	Electronic Dimming	18~69	BF .05~.88
3 foot Fluorescent Rapid Start T8 (25W)						
1	F25T8	1	MAGNETIC	Magnetic Energy Efficient	33	
2	F25T8	1	MAGNETIC	Magnetic Energy Efficient	65	
Electronic Ballasts						
RO=ballast factor 70 to 85% NO = ballast factor 85 to 100% HO = ballast factor >100% EE = efficient electronic						
1	F25T8	1	ELECT NO	Electronic Normal Output	27	
2	F25T8	1	ELECT NO	Electronic Normal Output	48	
3	F25T8	1	ELECT NO	Electronic Normal Output	68	
4	F25T8	1	ELECT NO	Electronic Normal Output	89	
1	F25T8	1	ELECT RO	Electronic Reduced Output	24	
2	F25T8	1	ELECT RO	Electronic Reduced Output	41	
3	F25T8	1	ELECT RO	Electronic Reduced Output	59	
4	F25T8	1	ELECT RO	Electronic Reduced Output	76	
1	F25T8	1	ELECT HO	Electronic High Output	29	BF~1.05
2	F25T8	1	ELECT HO	Electronic High Output	51	BF~1.05
3	F25T8	1	ELECT HO	Electronic High Output	74	BF~1.05
1	F25T8	1	ELECT DIM	Electronic Dimming	8~25	BF .05~.94
2	F25T8	1	ELECT DIM	Electronic Dimming	13~49	BF .05~.94
3	F25T8	1	ELECT DIM	Electronic Dimming	16~76	BF .05~.94
4	F25T8	1	ELECT DIM	Electronic Dimming	22~96	BF .05~.88
4 foot Fluorescent Rapid Start T12 for T-8 ballasts ("Energy Saving" 25W)						
1	F25T12ES	1	ELECT NO	Electronic Normal Output	27	
2	F25T12ES	1	ELECT NO	Electronic Normal Output	52	
3	F25T12ES	1	ELECT NO	Electronic Normal Output	77	
4	F25T12ES	1	ELECT NO	Electronic Normal Output	95	

LUMINAIRE POWER

Table B-11

Lamp		Ballast			Watts/	Comments
No.	Designation	No.	Abbreviation	Description	Luminaire	
Fluorescent Rapid Start T8						
4 foot Fluorescent Instant Start T8 (“Energy Saving” 30W)						
1	F32T8/30ES	1	ELECT NO	Electronic Normal Output	29	
2	F32T8/30ES	1	ELECT NO	Electronic Normal Output	54	
3	F32T8/30ES	1	ELECT NO	Electronic Normal Output	79	
4	F32T8/30ES	1	ELECT NO	Electronic Normal Output	104	
1	F32T8/30ES	1	ELECT RO	Electronic Reduced Output	27	
2	F32T8/30ES	1	ELECT RO	Electronic Reduced Output	48	
3	F32T8/30ES	1	ELECT RO	Electronic Reduced Output	70	
4	F32T8/30ES	1	ELECT RO	Electronic Reduced Output	91	
1	F32T8/30ES	1	ELECT NO EE	EE Normal Output	33	
2	F32T8/30ES	1	ELECT NO EE	EE Normal Output	52	
3	F32T8/30ES	1	ELECT NO EE	EE Normal Output	77	
4	F32T8/30ES	1	ELECT NO EE	EE Normal Output	101	
1	F32T8/30ES	1	ELECT RO EE	EE Reduced Output	28	
2	F32T8/30ES	1	ELECT RO EE	EE Reduced Output	45	
3	F32T8/30ES	1	ELECT RO EE	EE Reduced Output	66	
4	F32T8/30ES	1	ELECT RO EE	EE Reduced Output	88	
4 foot Fluorescent Rapid Start T8 (32W)						
1	F32T8	0.5	MAGNETIC	Magnetic Energy Efficient	35	Tandem wired
1	F32T8	1	MAGNETIC	Magnetic Energy Efficient	39	
2	F32T8	1	MAGNETIC	Magnetic Energy Efficient	70	
3	F32T8	1.5	MAGNETIC	Magnetic Energy Efficient	105	Tandem wired
3	F32T8	2	MAGNETIC	Magnetic Energy Efficient	109	
4	F32T8	2	MAGNETIC	Magnetic Energy Efficient	140	(2) two-lamp ballasts

LUMINAIRE POWER

Table B-11

Lamp		Ballast			Watts/	Comments
No.	Designation	No.	Abbreviation	Description	Luminaire	
Fluorescent Rapid Start T8						
4 foot Fluorescent Rapid Start T8 (32W)						
Electronic Ballasts						
RO=ballast factor 70 to 85% NO = ballast factor 85 to 100% HO = ballast factor >100% EE = efficient electronic						
1	F32T8	1	ELECT NO	Electronic Normal Output	32	
2	F32T8	1	ELECT NO	Electronic Normal Output	62	
3	F32T8	1	ELECT NO	Electronic Normal Output	93	
4	F32T8	1	ELECT NO	Electronic Normal Output	114	
1	F32T8	1	EE NO	EE Normal Output	35	
2	F32T8	1	EE NO	EE Normal Output	55	
3	F32T8	1	EE NO	EE Normal Output	82	
4	F32T8	1	EE NO	EE Normal Output	107	
1	F32T8	1	ELECT RO	Electronic Reduced Output	29	
2	F32T8	1	ELECT RO	Electronic Reduced Output	51	
3	F32T8	1	ELECT RO	Electronic Reduced Output	76	
4	F32T8	1	ELECT RO	Electronic Reduced Output	98	
2	F32T8	1	ELECT HO	Electronic High Output	77	BF~1.13
3	F32T8	1	ELECT HO	Electronic High Output	112	BF~1.18
1	F32T8	1	EE RO	EE Reduced Output	30	
2	F32T8	1	EE RO	EE Reduced Output	48	
3	F32T8	1	EE RO	EE Reduced Output	73	
4	F32T8	1	EE RO	EE Reduced Output	96	
2	F32T8	1	ELECT TL	Electronic Two Level (50 & 100%)	65	
1	F32T8	1	ELECT DIM1	Electronic Dimming	9~35	BF .05~1.0
2	F32T8	1	ELECT DIM1	Electronic Dimming	15~68	BF .05~1.0
3	F32T8	1	ELECT DIM1	Electronic Dimming	20~102	BF .05~1.0
1	F32T8	1	ELECT DIM2	Electronic Dimming	9~33	BF .05~.88
2	F32T8	1	ELECT DIM2	Electronic Dimming	14~64	BF .05~.88
3	F32T8	1	ELECT DIM2	Electronic Dimming	18~93	BF .05~.88
4	F32T8	1	ELECT DIM2	Electronic Dimming	25~116	BF .05~.88
5 foot Fluorescent Rapid Start T8 (40W)						
1	F40T8	1	MAGNETIC	Magnetic Energy Efficient	50	
2	F40T8	1	MAGNETIC	Magnetic Energy Efficient	92	
1	F40T8	1	ELECT	Electronic	46	
2	F40T8	1	ELECT	Electronic	79	
3	F40T8	1	ELECT	Electronic	112	

LUMINAIRE POWER

Table B-11

Lamp		Ballast			Watts/	Comments
No.	Designation	No.	Abbreviation	Description	Luminaire	
Fluorescent Rapid Start T12						
3 foot Fluorescent Rapid Start T12 ("Energy-Saving" 25W)						
1	F30T12/ES	1	MAG STD	Magnetic Standard	42	Tandem wired
2	F30T12/ES	1	MAG STD	Magnetic Standard	74	
3	F30T12/ES	1.5	MAG STD	Magnetic Standard	111	
3	F30T12/ES	2	MAG STD	Magnetic Standard	116	
2	F30T12/ES	1	MAGNETIC	Magnetic Energy Efficient	66	
1	F30T12/ES	1	ELECT	Electronic	26	
2	F30T12/ES	1	ELECT	Electronic	53	
3 foot Fluorescent Rapid Start T12 ("Standard" 30W)						
1	F30T12	1	MAG STD	Magnetic Standard	46	Tandem wired
2	F30T12	1	MAG STD	Magnetic Standard	79	
3	F30T12	1.5	MAG STD	Magnetic Standard	118	
3	F30T12	2	MAG STD	Magnetic Standard	125	
2	F30T12	1	MAGNETIC	Magnetic Energy Efficient	73	
1	F30T12	1	ELECT	Electronic	30	
2	F30T12	1	ELECT	Electronic	60	
4 foot Fluorescent Rapid Start T12 ("Energy-Saving Plus" 32W)						
1	F40T12/ES Plus	0.5	MAGNETIC	Magnetic Energy Efficient	34	Tandem wired
1	F40T12/ES Plus	1	MAGNETIC	Magnetic Energy Efficient	41	
2	F40T12/ES Plus	1	MAGNETIC	Magnetic Energy Efficient	68	
3	F40T12/ES Plus	1	MAGNETIC	Magnetic Energy Efficient	99	
3	F40T12/ES Plus	1.5	MAGNETIC	Magnetic Energy Efficient	102	Tandem wired
3	F40T12/ES Plus	2	MAGNETIC	Magnetic Energy Efficient	109	
4	F40T12/ES Plus	2	MAGNETIC	Magnetic Energy Efficient	136	(2) Two-lamp ballasts

LUMINAIRE POWER

Table B-11

Lamp		Ballast			Watts/	Comments
No.	Designation	No.	Abbreviation	Description	Luminaire	
Fluorescent Rapid Start T12						
4 foot Fluorescent Rapid Start T12 ("Energy-Saving"34W)						
1	F40T12/ES	0.5	MAG STD**	Magnetic Standard	42	Tandem wired
1	F40T12/ES	1	MAG STD**	Magnetic Standard	48	
2	F40T12/ES	1	MAG STD**	Magnetic Standard	82	
3	F40T12/ES	1.5	MAG STD**	Magnetic Standard	122	Tandem wired
3	F40T12/ES	2	MAG STD**	Magnetic Standard	130	
4	F40T12/ES	2	MAG STD**	Magnetic Standard	164	(2) Two-lamp ballasts
1	F40T12/ES	0.5	MAGNETIC	Magnetic Energy Efficient	36	Tandem wired
1	F40T12/ES	1	MAGNETIC	Magnetic Energy Efficient	43	
2	F40T12/ES	1	MAGNETIC	Magnetic Energy Efficient	72	
3	F40T12/ES	1	MAGNETIC	Magnetic Energy Efficient	105	
3	F40T12/ES	1.5	MAGNETIC	Magnetic Energy Efficient	108	Tandem wired
3	F40T12/ES	2	MAGNETIC	Magnetic Energy Efficient	112	
4	F40T12/ES	2	MAGNETIC	Magnetic Energy Efficient	144	(2) Two-lamp ballasts
2	F40T12/ES	1	MAG HC	Magnetic Heater Cutout	58	
3	F40T12/ES	1.5	MAG HC	Magnetic Heater Cutout	87	Tandem wired
4	F40T12/ES	2	MAG HC	Magnetic Heater Cutout	116	(2) Two-lamp ballasts
2	F40T12/ES	1	MAG HC FO	Mag. Heater Cutout Full Light	66	
3	F40T12/ES	1.5	MAG HC FO	Mag. Heater Cutout Full Light	99	Tandem wired
4	F40T12/ES	2	MAG HC FO	Mag. Heater Cutout Full Light	132	(2) Two-lamp ballasts
1	F40T12/ES	0.5	ELECT	Electronic	30	Tandem wired
1	F40T12/ES	1	ELECT	Electronic	31	
2	F40T12/ES	1	ELECT	Electronic	62	
3	F40T12/ES	1	ELECT	Electronic	90	
3	F40T12/ES	1.5	ELECT	Electronic	93	Tandem wired
3	F40T12/ES	2	ELECT	Electronic	93	
4	F40T12/ES	1	ELECT	Electronic	121	
4	F40T12/ES	2	ELECT	Electronic	124	(2) Two-lamp ballasts
2	F40T12/ES	1	ELECT AO	Elec. Adjustable Output (to 15%)	60	
3	F40T12/ES	1.5	ELECT AO	Elec. Adjustable Output (to 15%)	90	Tandem wired
4	F40T12/ES	2	ELECT AO	Elec. Adjustable Output (to 15%)	120	(2) Two-lamp ballasts

LUMINAIRE POWER

Table B-11

Lamp		Ballast			Watts/	Comments
No.	Designation	No.	Abbreviation	Description	Luminaire	
Fluorescent Rapid Start T12						
4 foot Fluorescent Rapid Start Standard (40W)						
<u>1</u>	<u>F40T12</u>	<u>0.5</u>	<u>MAG STD**</u>	<u>Magnetic Standard</u>	<u>26</u>	<u>Tandem wired</u>
<u>1</u>	<u>F40T12</u>	<u>1</u>	<u>MAG STD**</u>	<u>Magnetic Standard</u>	<u>52</u>	
<u>2</u>	<u>F40T12</u>	<u>1</u>	<u>MAG STD**</u>	<u>Magnetic Standard</u>	<u>96</u>	
<u>3</u>	<u>F40T12</u>	<u>1.5</u>	<u>MAG STD**</u>	<u>Magnetic Standard</u>	<u>144</u>	<u>Tandem wired</u>
<u>3</u>	<u>F40T12</u>	<u>2</u>	<u>MAG STD**</u>	<u>Magnetic Standard</u>	<u>148</u>	
<u>4</u>	<u>F40T12</u>	<u>2</u>	<u>MAG STD**</u>	<u>Magnetic Standard</u>	<u>192</u>	<u>(2) Two-lamp ballasts</u>
<u>1</u>	<u>F40T12</u>	<u>0.5</u>	<u>MAGNETIC</u>	<u>Magnetic Energy Efficient</u>	<u>44</u>	<u>Tandem wired</u>
<u>1</u>	<u>F40T12</u>	<u>1</u>	<u>MAGNETIC</u>	<u>Magnetic Energy Efficient</u>	<u>46</u>	
<u>2</u>	<u>F40T12</u>	<u>1</u>	<u>MAGNETIC</u>	<u>Magnetic Energy Efficient</u>	<u>88</u>	
<u>3</u>	<u>F40T12</u>	<u>1</u>	<u>MAGNETIC</u>	<u>Magnetic Energy Efficient</u>	<u>127</u>	
<u>3</u>	<u>F40T12</u>	<u>1.5</u>	<u>MAGNETIC</u>	<u>Magnetic Energy Efficient</u>	<u>132</u>	<u>Tandem wired</u>
<u>3</u>	<u>F40T12</u>	<u>2</u>	<u>MAGNETIC</u>	<u>Magnetic Energy Efficient</u>	<u>134</u>	
<u>4</u>	<u>F40T12</u>	<u>2</u>	<u>MAGNETIC</u>	<u>Magnetic Energy Efficient</u>	<u>176</u>	<u>(2) Two-lamp ballasts</u>
<u>2</u>	<u>F40T12</u>	<u>1</u>	<u>MAG HC</u>	<u>Magnetic Heater Cutout</u>	<u>71</u>	
<u>3</u>	<u>F40T12</u>	<u>1.5</u>	<u>MAG HC</u>	<u>Magnetic Heater Cutout</u>	<u>107</u>	<u>Tandem wired</u>
<u>4</u>	<u>F40T12</u>	<u>2</u>	<u>MAG HC</u>	<u>Magnetic Heater Cutout</u>	<u>142</u>	<u>(2) Two-lamp ballasts</u>

LUMINAIRE POWER

Table B-11

Lamp		Ballast			Watts/	Comments
No.	Designation	No.	Abbreviation	Description	Luminaire	
Fluorescent Rapid Start T12						
4 foot Fluorescent Rapid Start Standard (40W) (cont.)						
<u>2</u>	<u>F40T12</u>	<u>1</u>	<u>MAG HC FO</u>	<u>Magnetic Heater Cutout Full Light</u>	<u>80</u>	
<u>3</u>	<u>F40T12</u>	<u>1.5</u>	<u>MAG HC FO</u>	<u>Magnetic Heater Cutout Full Light</u>	<u>120</u>	<u>Tandem wired</u>
<u>4</u>	<u>F40T12</u>	<u>2</u>	<u>MAG HC FO</u>	<u>Magnetic Heater Cutout Full Light</u>	<u>160</u>	<u>(2) Two-lamp ballasts</u>
<u>1</u>	<u>F40T12</u>	<u>0.5</u>	<u>ELECT</u>	<u>Electronic</u>	<u>36</u>	<u>Tandem wired</u>
<u>1</u>	<u>F40T12</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic</u>	<u>37</u>	
<u>2</u>	<u>F40T12</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic</u>	<u>72</u>	
<u>3</u>	<u>F40T12</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic</u>	<u>107</u>	
<u>3</u>	<u>F40T12</u>	<u>1.5</u>	<u>ELECT</u>	<u>Electronic</u>	<u>108</u>	<u>Tandem wired</u>
<u>3</u>	<u>F40T12</u>	<u>2</u>	<u>ELECT</u>	<u>Electronic</u>	<u>109</u>	
<u>4</u>	<u>F40T12</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic</u>	<u>135</u>	
<u>4</u>	<u>F40T12</u>	<u>2</u>	<u>ELECT</u>	<u>Electronic</u>	<u>144</u>	<u>(2) Two-lamp ballasts</u>
<u>2</u>	<u>F40T12</u>	<u>1</u>	<u>ELECT RO</u>	<u>Electronic Reduce Output (75%)</u>	<u>61</u>	
<u>3</u>	<u>F40T12</u>	<u>1</u>	<u>ELECT RO</u>	<u>Electronic Reduce Output (75%)</u>	<u>90</u>	
<u>3</u>	<u>F40T12</u>	<u>1.5</u>	<u>ELECT RO</u>	<u>Electronic Reduce Output (75%)</u>	<u>92</u>	<u>Tandem wired</u>
<u>4</u>	<u>F40T12</u>	<u>2</u>	<u>ELECT RO</u>	<u>Electronic Reduce Output (75%)</u>	<u>122</u>	<u>(2) Two-lamp ballasts</u>
<u>2</u>	<u>F40T12</u>	<u>1</u>	<u>ELECT TL</u>	<u>Elec. Two Level (50 & 100%)</u>	<u>69</u>	
<u>3</u>	<u>F40T12</u>	<u>1.5</u>	<u>ELECT TL</u>	<u>Elec. Two Level (50 & 100%)</u>	<u>104</u>	<u>Tandem wired</u>
<u>4</u>	<u>F40T12</u>	<u>2</u>	<u>ELECT TL</u>	<u>Elec. Two Level (50 & 100%)</u>	<u>138</u>	<u>(2) Two-lamp ballasts</u>
<u>2</u>	<u>F40T12</u>	<u>1</u>	<u>ELECT AO</u>	<u>Elec. Adjustable Output (to 15%)</u>	<u>73</u>	
<u>3</u>	<u>F40T12</u>	<u>1.5</u>	<u>ELECT AO</u>	<u>Elec. Adjustable Output (to 15%)</u>	<u>110</u>	<u>Tandem wired</u>
<u>4</u>	<u>F40T12</u>	<u>2</u>	<u>ELECT AO</u>	<u>Elec. Adjustable Output (to 15%)</u>	<u>146</u>	<u>(2) Two-lamp ballasts</u>
<u>2</u>	<u>F40T12</u>	<u>1</u>	<u>ELECT DIM</u>	<u>Electronic Dimming (to 1%)</u>	<u>83</u>	
<u>3</u>	<u>F40T12</u>	<u>1.5</u>	<u>ELECT DIM</u>	<u>Electronic Dimming (to 1%)</u>	<u>125</u>	<u>Tandem wired</u>
<u>4</u>	<u>F40T12</u>	<u>2</u>	<u>ELECT DIM</u>	<u>Electronic Dimming (to 1%)</u>	<u>166</u>	<u>(2) Two-lamp ballasts</u>

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Table B-11

Lamp		Ballast			Watts/	Comments
No.	Designation	No.	Abbreviation	Description	Luminaire	
Fluorescent Rapid Start T10						
4 foot Fluorescent Rapid Start Extended Output (42W)						
<u>2</u>	<u>F40T10/EO</u>	<u>1</u>	<u>MAGNETIC</u>	<u>Magnetic Energy Efficient</u>	<u>92</u>	
<u>3</u>	<u>F40T10/EO</u>	<u>1.5</u>	<u>MAGNETIC</u>	<u>Magnetic Energy Efficient</u>	<u>138</u>	<u>Tandem wired</u>
<u>4</u>	<u>F40T10/EO</u>	<u>2</u>	<u>MAGNETIC</u>	<u>Magnetic Energy Efficient</u>	<u>184</u>	<u>(2) Two-lamp ballasts</u>
<u>2</u>	<u>F40T10/EO</u>	<u>1</u>	<u>MAG HC</u>	<u>Magnetic Heater Cutout</u>	<u>74</u>	
<u>3</u>	<u>F40T10/EO</u>	<u>1.5</u>	<u>MAG HC</u>	<u>Magnetic Heater Cutout</u>	<u>111</u>	<u>Tandem wired</u>
<u>4</u>	<u>F40T10/EO</u>	<u>2</u>	<u>MAG HC</u>	<u>Magnetic Heater Cutout</u>	<u>148</u>	<u>(2) Two-lamp ballasts</u>
<u>2</u>	<u>F40T10/EO</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic</u>	<u>74</u>	
<u>3</u>	<u>F40T10/EO</u>	<u>1.5</u>	<u>ELECT</u>	<u>Electronic</u>	<u>111</u>	<u>Tandem wired</u>
<u>4</u>	<u>F40T10/EO</u>	<u>2</u>	<u>ELECT</u>	<u>Electronic</u>	<u>148</u>	<u>(2) Two-lamp ballasts</u>
<u>2</u>	<u>F40T10/EO</u>	<u>1</u>	<u>ELECT RO</u>	<u>Electronic Reduce Output (75%)</u>	<u>63</u>	
<u>3</u>	<u>F40T10/EO</u>	<u>1.5</u>	<u>ELECT RO</u>	<u>Electronic Reduce Output (75%)</u>	<u>95</u>	<u>Tandem wired</u>
<u>4</u>	<u>F40T10/EO</u>	<u>2</u>	<u>ELECT RO</u>	<u>Electronic Reduce Output (75%)</u>	<u>126</u>	<u>(2) Two-lamp ballasts</u>
<u>2</u>	<u>F40T10/EO</u>	<u>1</u>	<u>ELECT TL</u>	<u>Elec. Two Level (50 & 100%)</u>	<u>72</u>	
<u>3</u>	<u>F40T10/EO</u>	<u>1.5</u>	<u>ELECT TL</u>	<u>Elec. Two Level (50 & 100%)</u>	<u>108</u>	<u>Tandem wired</u>
<u>4</u>	<u>F40T10/EO</u>	<u>2</u>	<u>ELECT TL</u>	<u>Elec. Two Level (50 & 100%)</u>	<u>144</u>	<u>(2) Two-lamp ballasts</u>
<u>2</u>	<u>F40T10/EO</u>	<u>1</u>	<u>ELECT AO</u>	<u>Elec. Adjustable Output (to 15%)</u>	<u>73</u>	
<u>3</u>	<u>F40T10/EO</u>	<u>1.5</u>	<u>ELECT AO</u>	<u>Elec. Adjustable Output (to 15%)</u>	<u>110</u>	<u>Tandem wired</u>
<u>4</u>	<u>F40T10/EO</u>	<u>2</u>	<u>ELECT AO</u>	<u>Elec. Adjustable Output (to 15%)</u>	<u>146</u>	<u>(2) Two-lamp ballasts</u>
<u>2</u>	<u>F40T10/EO</u>	<u>1</u>	<u>ELECT DIM</u>	<u>Electronic Dimming (to 1%)</u>	<u>85</u>	
<u>3</u>	<u>F40T10/EO</u>	<u>1.5</u>	<u>ELECT DIM</u>	<u>Electronic Dimming (to 1%)</u>	<u>128</u>	<u>Tandem wired</u>
<u>4</u>	<u>F40T10/EO</u>	<u>2</u>	<u>ELECT DIM</u>	<u>Electronic Dimming (to 1%)</u>	<u>170</u>	<u>(2) Two-lamp ballasts</u>

LUMINAIRE POWER

Table B-11

Lamp		Ballast			Watts/	Comments
No.	Designation	No.	Abbreviation	Description	Luminaire	
Fluorescent Rapid Start High Output (HO) T8 & T12, 8 ft						
8 foot Fluorescent Rapid Start T8 High Output (86W)						
<u>1</u>	<u>F96T8/HO</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic</u>	<u>88</u>	
<u>2</u>	<u>F96T8/HO</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic</u>	<u>160</u>	
8 foot Fluorescent Rapid Start T12 High Output ("Energy-Saving" 95W)						
<u>1</u>	<u>F96T12/HO/ES</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>125</u>	
<u>2</u>	<u>F96T12/HO/ES</u>	<u>1</u>	<u>MAG STD**</u>	<u>Magnetic Standard</u>	<u>227</u>	
<u>2</u>	<u>F96T12/HO/ES</u>	<u>1</u>	<u>MAGNETIC</u>	<u>Magnetic Energy Efficient</u>	<u>208</u>	
<u>2</u>	<u>F96T12/HO/ES</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic</u>	<u>170</u>	
8 foot Fluorescent Rapid Start T12 High Output ("Standard" 110W)						
<u>1</u>	<u>F96T12/HO</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>140</u>	
<u>2</u>	<u>F96T12/HO</u>	<u>1</u>	<u>MAG STD**</u>	<u>Magnetic Standard</u>	<u>252</u>	
<u>2</u>	<u>F96T12/HO</u>	<u>1</u>	<u>MAGNETIC</u>	<u>Magnetic Energy Efficient</u>	<u>237</u>	
<u>1</u>	<u>F96T12/HO</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic</u>	<u>119</u>	
<u>2</u>	<u>F96T12/HO</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic</u>	<u>205</u>	
8 foot Fluorescent Rapid Start T12 Very High Output ("Energy-Saving" 195W)						
<u>1</u>	<u>F96T12/VHO/ES</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>200</u>	
<u>2</u>	<u>F96T12/VHO/ES</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>325</u>	
8 foot Fluorescent Rapid Start T12 Very High Output ("Standard" 215W)						
<u>1</u>	<u>F96T12/VHO</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>230</u>	
<u>2</u>	<u>F96T12/VHO</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>440</u>	
Fluorescent Instant Start (single pin base "Slimline") T12, 4 ft						
4 foot Fluorescent Slimline Energy-Saving T12 (32W)						
<u>1</u>	<u>F48T12/ES</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>51</u>	
<u>2</u>	<u>F48T12/ES</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>82</u>	
4 foot Fluorescent Slimline Standard T12 (39W)						
<u>1</u>	<u>F48T12</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>59</u>	
<u>2</u>	<u>F48T12</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>98</u>	

LUMINAIRE POWER

Table B-11

Lamp		Ballast			Watts/	Comments
No.	Designation	No.	Abbreviation	Description	Luminaire	
Fluorescent Instant Start (single pin base "Slimline") T8 & T12, 8 ft.						
8 foot Fluorescent T8 Slimline (59W)						
<u>1</u>	<u>F96T8</u>	<u>1</u>	<u>MAGNETIC</u>	<u>Magnetic Standard</u>	<u>58</u>	
<u>2</u>	<u>F96T8</u>	<u>1</u>	<u>MAGNETIC</u>	<u>Magnetic Standard</u>	<u>120</u>	
<u>2</u>	<u>F96T8</u>	<u>1</u>	<u>ELECT NO</u>	<u>Electronic Normal Output</u>	<u>110</u>	
<u>1</u>	<u>F96T8</u>	<u>1</u>	<u>ELECT HO</u>	<u>Electronic High Output</u>	<u>72</u>	<u>BF~1.10</u>
<u>2</u>	<u>F96T8</u>	<u>1</u>	<u>ELECT HO1</u>	<u>Electronic High Output</u>	<u>140</u>	<u>BF~1.10</u>
<u>2</u>	<u>F96T8</u>	<u>1</u>	<u>ELECT HO2</u>	<u>Electronic High Output</u>	<u>151</u>	<u>BF~1.20</u>
8 foot Fluorescent T12 Slimline ("Energy-Saving" 60W)						
<u>1</u>	<u>F96T12/ES</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>74</u>	
<u>2</u>	<u>F96T12/ES</u>	<u>1</u>	<u>MAG STD**</u>	<u>Magnetic Standard</u>	<u>131</u>	
<u>2</u>	<u>F96T12/ES</u>	<u>1</u>	<u>MAGNETIC</u>	<u>Magnetic Energy Efficient</u>	<u>112</u>	
<u>1</u>	<u>F96T12/ES</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic</u>	<u>70</u>	
<u>2</u>	<u>F96T12/ES</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic</u>	<u>107</u>	
8 foot Fluorescent T12 Slimline ("Standard" 75W)						
<u>1</u>	<u>F96T12</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>92</u>	
<u>2</u>	<u>F96T12</u>	<u>1</u>	<u>MAG STD**</u>	<u>Magnetic Standard</u>	<u>158</u>	
<u>2</u>	<u>F96T12</u>	<u>1</u>	<u>MAGNETIC</u>	<u>Magnetic Energy Efficient</u>	<u>144</u>	
<u>1</u>	<u>F96T12</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic</u>	<u>85</u>	
<u>2</u>	<u>F96T12</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic</u>	<u>132</u>	

LUMINAIRE POWER

Table B-11

Lamp		Ballast			Watts/	Comments
No.	Designation	No.	Abbreviation	Description	Luminaire	
High Intensity Discharge						
Mercury Vapor						
1	H40	1	MAG STD	Magnetic Standard	51	
1	H50	1	MAG STD	Magnetic Standard	63	
1	H75	1	MAG STD	Magnetic Standard	88	
1	H100	1	MAG STD	Magnetic Standard	119	
1	H175	1	MAG STD	Magnetic Standard	197	
1	H250	1	MAG STD	Magnetic Standard	285	
1	H400	1	MAG STD	Magnetic Standard	450	
1	H1000	1	MAG STD	Magnetic Standard	1080	
Metal Halide						
1	M32	1	MAG STD	Magnetic Standard	42	
1	M35/39	1	MAG STD	Magnetic Standard	48	
1	M35/39	1	ELECT	Electronic	44	
1	M50	1	MAG STD	Magnetic Standard	68	
1	M50	1	ELECT	Electronic	58	
1	M70	1	MAG STD	Magnetic Standard	92	
1	M70	1	ELECT	Electronic	86	
1	M100	1	MAG STD	Magnetic Standard	122	
1	M100	1	ELECT	Electronic	110	
1	M125	1	MAG STD	Magnetic Standard	150	
1	M150	1	MAG STD	Magnetic Standard	186	
1	M150	1	ELECT	Electronic	168	
1	M175	1	MAG STD	Magnetic Standard	205	
1	M200	1	MAG STD	Magnetic Standard	232	
1	M225	1	MAG STD	Magnetic Standard	258	
1	M250	1	MAG STD	Magnetic Standard	295	
1	M320	1	MAG STD	Magnetic Standard	365	
1	M320	1	MAG LR	277v Linear Reactor	345	
1	M360	1	MAG STD	Magnetic Standard	422	
1	M360	1	MAG LR	277v Linear Reactor	388	
1	M400	1	MAG STD	Magnetic Standard	461	
1	M400	1	MAG LR	277v Linear Reactor	426	
1	M450	1	MAG STD	Magnetic Standard	502	
1	M450	1	MAG LR	277v Linear Reactor	478	
1	M750	1	MAG STD	Magnetic Standard	820	
1	M900	1	MAG STD	Magnetic Standard	990	
1	M1000	1	MAG STD	Magnetic Standard	1080	
1	M1500	1	MAG STD	Magnetic Standard	1650	
1	M1650	1	MAG STD	Magnetic Standard	1810	

High Pressure Sodium

<u>1</u>	<u>S35</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>44</u>
<u>1</u>	<u>S50</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>61</u>
<u>1</u>	<u>S70</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>93</u>
<u>1</u>	<u>S100</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>116</u>
<u>1</u>	<u>S150</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>173</u>
<u>1</u>	<u>S200</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>240</u>
<u>1</u>	<u>S250</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>302</u>
<u>1</u>	<u>S400</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>469</u>
<u>1</u>	<u>S1000</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>1090</u>

Low Pressure Sodium

<u>1</u>	<u>LPS18</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>30</u>
<u>1</u>	<u>LPS35</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>60</u>
<u>1</u>	<u>LPS55</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>80</u>
<u>1</u>	<u>LPS90</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>125</u>
<u>1</u>	<u>LPS135</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>178</u>
<u>1</u>	<u>LPS180</u>	<u>1</u>	<u>MAG STD</u>	<u>Magnetic Standard</u>	<u>220</u>

12 Volt Tungsten Halogen Lamps**Including MR16, Bi-pin, AR70, AR111, PAR36**

<u>1</u>	<u>20 watt lamp</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic Power Supply</u>	<u>23</u>
<u>1</u>	<u>25 watt lamp</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic Power Supply</u>	<u>28</u>
<u>1</u>	<u>35 watt lamp</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic Power Supply</u>	<u>38</u>
<u>1</u>	<u>37 watt lamp</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic Power Supply</u>	<u>41</u>
<u>1</u>	<u>42 watt lamp</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic Power Supply</u>	<u>45</u>
<u>1</u>	<u>50 watt lamp</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic Power Supply</u>	<u>54</u>
<u>1</u>	<u>65 watt lamp</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic Power Supply</u>	<u>69</u>
<u>1</u>	<u>71 watt lamp</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic Power Supply</u>	<u>75</u>
<u>1</u>	<u>75 watt lamp</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic Power Supply</u>	<u>80</u>
<u>1</u>	<u>100 watt lamp</u>	<u>1</u>	<u>ELECT</u>	<u>Electronic Power Supply</u>	<u>106</u>
<u>1</u>	<u>20 watt lamp</u>	<u>1</u>	<u>MAG</u>	<u>Magnetic Transformer</u>	<u>24</u>
<u>1</u>	<u>25 watt lamp</u>	<u>1</u>	<u>MAG</u>	<u>Magnetic Transformer</u>	<u>29</u>
<u>1</u>	<u>35 watt lamp</u>	<u>1</u>	<u>MAG</u>	<u>Magnetic Transformer</u>	<u>39</u>
<u>1</u>	<u>37 watt lamp</u>	<u>1</u>	<u>MAG</u>	<u>Magnetic Transformer</u>	<u>42</u>
<u>1</u>	<u>42 watt lamp</u>	<u>1</u>	<u>MAG</u>	<u>Magnetic Transformer</u>	<u>46</u>
<u>1</u>	<u>50 watt lamp</u>	<u>1</u>	<u>MAG</u>	<u>Magnetic Transformer</u>	<u>55</u>
<u>1</u>	<u>65 watt lamp</u>	<u>1</u>	<u>MAG</u>	<u>Magnetic Transformer</u>	<u>70</u>
<u>1</u>	<u>71 watt lamp</u>	<u>1</u>	<u>MAG</u>	<u>Magnetic Transformer</u>	<u>76</u>
<u>1</u>	<u>75 watt lamp</u>	<u>1</u>	<u>MAG</u>	<u>Magnetic Transformer</u>	<u>81</u>
<u>1</u>	<u>100 watt lamp</u>	<u>1</u>	<u>MAG</u>	<u>Magnetic Transformer</u>	<u>108</u>